

REMARKS

Claims 1, 3-12, 14-16, 19, 21, 22, 25, 27-34, 36, 38-41, 43 and 44 are pending in this application.

Apparatus claims 1, 3-12, 14-16, 19, 21, 22, 25, 27-30 and 43 were allowed in the previous office action.

Method claims 31-34, 36, and 38 -41 were rejected in the previous office action, as was assembly claim 44.

Independent method claim 31 (upon which all of the rejected method claims depend) has been amended to bring it into line with the allowed apparatus claims. Specifically, claim 31 now specifies that the flow control insert includes at least one spiral portion which directs fluid in a first spiral direction and at least one further portion which directs fluid in a second spiral direction opposite to the first spiral direction, with a cavity provided between the two spiral portions, and further requires the additional limitation that the fluid is caused to move from the first spiral portion through the cavity and from the cavity through the second spiral portion. Basis for this amendment can be found in claim 24 of the PCT application as originally filed. Claim 44 has been cancelled without prejudice.

No new matter has been added.

35 USC 1.83(a) Rejections to the Drawings

The drawings were objected to on page 2 of the office action on the basis that the drawings should show the cavity between the spiral portions. In response to the objection, Applicant respectfully submits that the feature of the cavity is already shown in the drawings and described in the description, and it is respectfully submitted that no further amendment of the drawings is deemed to be needed to show this feature. The feature of the cavity between the first and second spiral portions as claimed is fulfilled by the axial connecting passages identified by 86 and 89 in Figs 1, 5 and 6 and described on page 16, line 26 through to page 17, line 19, and again at page 23, line 31 through to page 24, line 9 in the published PCT application (Paragraphs [0076], [0077], and [0096] in the Published US Patent Application.) The drawings 13 and 14 are introduced as schematic drawings and so do not show this feature, which is shown in Figs 1, 5

and 6. The Examiner's rejection to the drawings is believed to be traversed in light of the above comments.

35 USC 103(a) Rejections based on Metz (US 4,083,406) in view of Muecke (US 3,727,691)

Claims 31-34, 36, 39-41 and 44 were rejected under 35 USC 103(a) as being unpatentable over Metz in view of Muecke.

In response to this rejection, claim 31 has been amended in the present paper to bring it in line with the allowed apparatus claim 1, to recite the feature of the cavity between the first and second spiral portions and the change of direction of the fluid in that cavity, as recited in original claim 24 of the PCT application as filed. Method claim 31 is therefore of similar scope to allowed apparatus claim 1.

Neither Metz nor Muecke discloses or suggests any form of cavity between adjacent spiral portions. The adjacent spiral portions in the baffles 26 of Muecke are required to be welded together in an inline relation as taught in column 6 line 35-36.

It is respectfully submitted that the independent claims as now amended are, therefore, allowable. Dependent claims 32-34, 36, and 39-41 are all dependent on claim 31, and so these claims are also novel and non-obvious, at least by virtue of their dependencies. Claim 44 has been cancelled without prejudice. Hence, the Examiner's rejection of these claims in view of Metz and Muecke is now moot.

35 USC 103 rejection in view of Metz (US 4,083,406), Muecke (US 3,727,691) and Dillon (US 5,346,007)

Claim 38 was rejected on page 5 of the office action on the basis of Metz combined with Muecke and Dillon. Claim 38 is dependent on claim 32, which as argued above, is allowable. Accordingly, claim 38 is allowable at least by virtue of its dependency on claim 32.

Request for Allowance

It is thus believed that the application is now allowable and notification to this effect is earnestly solicited. Should the Examiner have any questions or comments regarding Applicants' amendments or response, he is asked to contact Applicants' undersigned representative at (215) 988.3303. Please direct all correspondence to the below-listed address. If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0573.

Respectfully submitted,

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